**3GPP TSG-SA5 Meeting #142eS5-222034**

**04 - 12 April 2022, E-meeting**

**Source: Nokia**

**Title: pCR 28.105 Add requirements for control of AI/ML Training**

**Document for: Approval**

**Agenda Item: 6.6.5**

# 1 Decision/action requested

***The group is asked to discuss and agree on the proposal.***

# 2 References

[1] 3GPP TS 28.xxx-100 “Management and orchestration; AI/ML management”.

# 3 Rationale

The AI/ML training needs to support the capabilities that enable the consumers to manage and control AI/ML training processes. This pCR presents the corresponding requirements.

# 4 Detailed proposal

|  |
| --- |
| **Start of modifications** |

## 6.N Managing ML Training Processes

### 6.N.1 Description

This machine learning capability relates to means for managing and controlling ML training processes.

To achieve the desired outcomes of any machine learning enabled use-case, the Machine Learning Model applied for such analytics and decision making needs to be trained with the appropriate network data. The training may be undertaken in managed function or in a management function.

In either case, the network (or the OAM system thereof) not only needs to have the required training capabilities but needs also to have the means to manage the training of the ML models and or ML-based functions. The consumers need to be able to interact with the training process, e.g. to suspend or restart the process; and also need to manage and control the requests related to any such training process.

### 6.N.2 Requirements

|  |  |  |
| --- | --- | --- |
| **Requirement label** | **Description** | **Related use case(s)** |
| **REQ-ML\_TRAIN-MGT\_01** | 3GPP management system shall model the ML training processes and the information elements needed to enable an authorized consumer to interact with the ML training process or instances thereof  | Managing ML Training Processes |
| **REQ-ML\_TRAIN- MGT\_02** | 3GPP management system shall have the capability to enable an authorized consumer to request the creation of an ML training instance, which may be related to one or more requests for training.  | Managing ML Training Processes |
| **REQ- ML\_TRAIN- MGT\_03** | 3GPP management system shall have the capability to enable an authorized consumer to manage and configure one or more requests for the training of specific ML Models or ML-based functions, e.g. to modify the characteristics of the request or to delete a request  | Managing ML Training Processes |
| **REQ- ML\_TRAIN- MGT\_04** | 3GPP management system shall have the capability to enable an authorized consumer to manage and configure one or more training processes, e.g. to start, suspend or restart the training; or to adjust the training conditions and/or characteristics. | Managing ML Training Processes |
| **REQ- ML\_TRAIN- MGT\_05** | 3GPP management system shall have the capability to enable an authorized consumer (e.g. the function/entity that generated a request for ML training) to request for a report on the outcomes of a specific training instance.  | Managing ML Training Processes |
| **REQ- ML\_TRAIN- MGT\_06** | 3GPP management system shall have the capability to enable an authorized consumer to define the reporting characteristics related to a specific training request or training instance | Managing ML Training Processes |
| **REQ- ML\_TRAIN- MGT\_07** | 3GPP management system shall have the capability to enable the ML Training function to report to any authorized consumer about specific ML Training process and/or report about the outcomes of any such ML Training process | Managing ML Training Processes |

|  |
| --- |
| **End of modifications** |